

## ABSTRACT

Structures and methods are provided for dual referenced microstrip structures having low reference discontinuities between a microstrip trace referenced to a primary reference plane as compared to a microstrip trace referenced to a secondary reference plane. A method, according to one embodiment of the invention, includes the calculation of a first characteristic impedance of the dual referenced microstrip transmission line referenced to a primary reference layer, the calculation of a second characteristic impedance of the dual referenced microstrip transmission line referenced to a secondary reference layer, the calculation of an absolute value of a difference between the first and the second characteristic impedance, the comparison of the absolute value of the difference to a predetermined threshold value, and if the absolute value of the difference is greater than the predetermined threshold value, then a physical parameter associated with the characteristic impedance between the primary and secondary reference layers may be varied until the difference is reduced to less than the predetermined threshold. A structure, according to one embodiment of the invention includes a microstrip transmission line, a first conductive plane, a first dielectric layer provided between the microstrip transmission line and the first conductive plane, a second conductive plane, and a second dielectric layer provided between the first conductive plane and the second conductive plane.